PATENT ABSTRACTS OF JAPAN

(11)Publication number:

08-239655

(43)Date of publication of application: 17.09.1996

(51)Int.Cl.

CO9K 11/06 H05B 33/14

(21)Application number: 07-045504

(22)Date of filing:

06.03.1995

(71)Applicant: IDEMITSU KOSAN CO LTD

(72)Inventor: AZUMA HISAHIRO

HOSOKAWA CHISHIO HIRONAKA YOSHIO

(54) ORGANIC ELECTROLUMINESCENCE ELEMENT

(57)Abstract:

PURPOSE: To obtain an excellent luminescence efficiency by combining a plurality of members selected from electron donating styryl compds. having a vinylene group with each terminal bonded to an aromatic ring or an aromatic heterocyclic ring to incorporate functional layers having an identical function.

CONSTITUTION: An anode having a film thickness of 10 to 200nm is formed on a transparent substrate by vapor deposition of a dielectric material, such as SnO2. Two or more electron donating styryl compds. represented by the formula I [wherein R1 to R12 represent H, a halogen, a 1-10C alkyl, a 1-10C alkoxy, a 6-18C aryloxy, or a styryl represented by the formula II (two adjacent styryls optionally combining with each other to form a five- or six-membered ring); Z1, Z2, and E represent H, a 1-10C alkyl or the like; Ar represents a 6-20C arylene, a 4-20C divalent arom. heterocyclic group or the like; each dotted line may serve to conduct linking to form a heterocyclic structure; and n is 0 to 2) are co-deposited

П

to form a luminescence layer having a thickness of 5nm to 5µm, and another functional layer is laminated thereon. A cathode material, such as an Mg/Cu alloy, is then electrodeposited thereon to form a cathode having a film thickness of 50 to 200nm, thereby preparing an org. electroluminescence element.

LEGAL STATUS

[Date of request for examination]

26.04.2001

[Date of sending the examiner's decision of

19.04.2005

rejection

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

3724833

[Date of registration]

30.09.2005

[Number of appeal against examiner's decision

2005-009236

of rejection]